

FCC Information

This device generates and uses radio frequency (RF) energy, and if not installed and used properly, this equipment may cause interference to radio and television reception.

This equipment has been type tested and found to comply with the specifications in Subpart J of Part 15 of FCC Rules. These rules are designed to provide reasonable protection against radio and television interference in a residential installation. However, there is no guarantee that interference will not occur in particular installations.

If this equipment does cause interference to radio or television reception (which you can determine by turning the equipment off and on), try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna (that is, the antenna for the radio or television that is "receiving" the interference).
- Move the unit away from the equipment that is receiving interference.
- Plug the unit into a different wall outlet so that the unit and the equipment receiving interference are on different branch circuits.

If these measures do not eliminate the interference, please consult your dealer or an experienced radio/television technician for additional suggestions.

Also, the Federal Communications Commission has prepared a helpful booklet, "How To Identify and Resolve Radio TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Please specify stock number 004-000-00345-4 when ordering copies.

For Your Safety

The AC power plug is polarized (one blade is wider than the other) and only fits into AC power outlets one way. If the plug won't go into the outlet completely, turn the plug over and try to insert it the other way. If it still won't fit, contact a qualified electrician to change the outlet, or use a different one. **Do not attempt to bypass this safety feature**.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

For Your Records

In the event that service should be required, you may need both the model number and the serial number. In the space below, record the date and place of purchase, and the serial number:

Model No. RT2250/ RT2250R

Remote Control No. CRK76

Date of Purchase

Place of Purchase

Serial No.

Service Information

This product should be serviced only by those specially trained in appropriate servicing techniques. For instructions on how to obtain service, refer to the warranty included in this Guide

WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



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Unpacking the Receiver

For RT2250 & RT2250R, check that you received the following items:

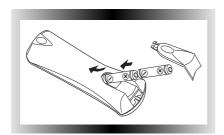
- one receiver unit;
- one RCA Universal Remote Control (CRK76);
- one external FM Dipole antenna;
- · one external AM loop antenna;
- one audio cable (two wires) with red and white RCA connectors:
- one video cable (single wire) with yellow RCA connectors;
- · one instruction book;
- one safety leaflet;
- · and one pair of AA batteries.

For RT2250, you also received:

- one set of spearkers including 2 left and right front speakers, 1 centre speaker, 1 subwoofer and 2 left and right rear speakers.
- 6 speaker cables including:
 - 2 x red/ balck cable for front speakers,
 - 1 x blue/ black cable for centre speaker,
 - 1 x brown/ black cable for subwoofer &
 - 2 x grey/ black cable for rear speakers.

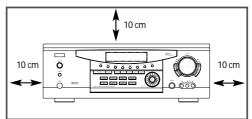
Inserting Batteries into Remote Control

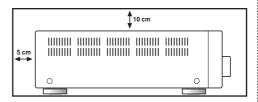
Insert two AA(R6) batteries according to the + and - signs on the battery compartment. To use the remote control, point it directly at your receiver.



Set up and Maintenance of the Receiver

• Provide spaces for sufficient ventilation as indicated:





- Do not connect to the AC power cords until all connections are completed.
- Do not use your set immediately after transferred from a cold place to a warm place: there is risk of condensation.
- Do not expose your set to water projections and excessively high temperatures.
- After having disconnected your set, clean the case with a soft cloth, or with a slightly humid chamois leather. Never use strong solvents.

Connecting to Audio-Visual Components

This receiver allows you to connect to a large variety of audio or video components.

Before you Connect

- · Protect components from power surges.
- Connect all components before plugging any power cords into the wall outlet.
- Always turn off the receiver and/or components before you connect or disconnect any cables.
- Contact consumer relations if you have questions concerning the connections or components.

Note: Always make sure that color-coded pins match the color of the terminals in which they are inserted. The connection cable plugs and jacks are color-coded as follows:

Speaker Terminals: RT 2250 - Red/Black (Main Speakers), Blue/Black (Center Speaker), Grey/Black (Rear Speakers) and Brown/Black (subwoofer). RT2250R - Red/ Black (Main, Center & Rear Speakers)

RCA Phono Type Terminals: Red for the right (R) channel. White for the left (L) channel. Yellow for the video. Black for the powered subwoofer.

Positioning the Cables

Cables should be positioned correctly to avoid audio hum or interference. Below are a few suggestions:

- Insert all cable plugs into their jacks firmly.
- Place audio/video cables to the sides of the receiver's back panel instead of straight down the middle after you have connected the components.
- Try not to coil any power cables and keep them away from the audio/video cables as much as possible.
- Make sure all antennas and cables are properly grounded.

Protect your Components from Overheating

- Do not block ventilation holes in any component. Arrange the components so that air can circulate freely.
- Do not stack components directly on top of each other
- Allow adequate ventilation when placing your components in a stand.
- Place an amplifier near the top shelf of the stand so heating air rising from it will not affect other components. If you have a satellite receiver, you should place it on the top shelf.

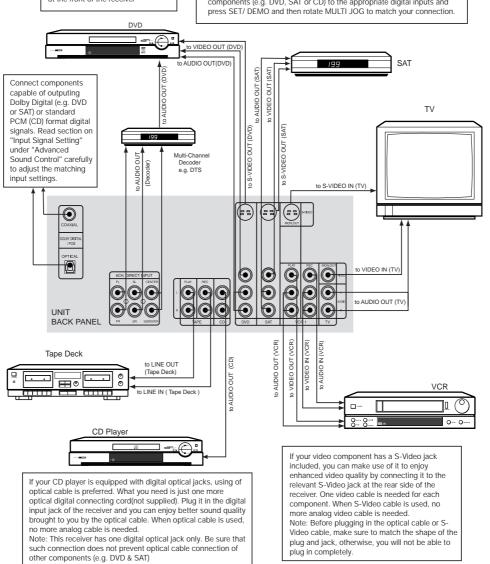


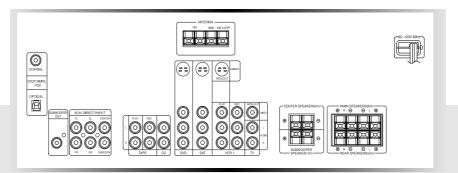
EN Connecting to Audio-Visual Components

Remark: If you have a video camera, video game machine, or an extra VCR, connect it to VCR 2 jack at the front of the receiver

If you have a SAT receiver or DVD player, you can make use of an optical digital connecting cord (not supplied) or coaxial digital connecting cord (not supplied) to enjoy Dolby Digital sound quality. One optical / coaxial cable is needed for each SAT receiver / DVD player. When optical or coaxial cable is used, no more analog cable is needed.

Note: This receiver provides one optical and one coaxial digital input for the connection of your auxillary components. Please connect your components (e.g. DVD, SAT or CD) to the appropriate digital inputs and press SET/DEMO and then rotate MULTILIOG to match your connection.





Connecting the Antennas

Antenna and Speaker

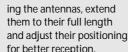
Wire Connection

Release tab to lock wire in

is completely removed from the ends of the Antenna and speaker wires at all connection points.

The AM and FM antennas connect to the AM and FM terminals on the system's back panel. They must be hooked up in order to receive clear reception. Uncoil the antenna wires and locate the bare ends. Press down on the tab to open the terminal and insert the wire. Snap the tab closed. After connect-

> them to their full length for better reception.



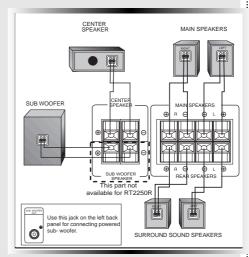
Connecting the **Speakers**

At least two front speakers (left and right) are required. For better sound quality, Center speaker, rear speakers and Subwoofer are preferred. Adding center and rear speakers will enhance surround effects. Adding a Subwoofer will increase bass response.

If you want to enjoy full range of sound effects, with small speakers, it is a must to use the subwoofer with the speakers to maintain adequate bass signal for the surround sound effect.

Speaker cords, 1 for each speaker, are needed for connection. Twist the stripped ends of speaker cord about 2/3 inch (15 mm). Press down on the tab to open the terminal and insert the wire. Snap the tab closed. To ease speaker connections, the speaker cords and the terminals are color-coded into:

Red/Black (Main Speakers), Blue/Black (Center Speaker) and Grey/ Black (Rear Speakers). When connecting the speakers, make sure the colors of speaker wires and terminals are matched. If the cords are reversed, the sound will be distorted and will lack



Connecting the Subwoofer

For RT2250, connect the subwoofer with the audio cord (brown/ black) provided. For RT2250R, or if you want to connect your own powered subwoofer, a monoaural audio cord (not supplied) is needed.

This receiver offers a high flexibility for user to use a large variety of speakers and subwoofers. For more information please refer to section "Fine Setting of the Speakers" in "Advanced Sound Control" on

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Positioning your Speakers

Your system is equipped with Dolby Digital, which enables the unit to reproduce sound effects as they were intended. However, the speakers must be properly positioned and balanced.

In order to enjoy Dolby-enhanced sound quality, five speakers are preferred: One center speaker, left and right main speakers, rear left and right speakers, and an optional subwoofer. However, if your front speakers are small speakers, then a subwoofer is essential or you will not be able to enjoy enhanced bass effects. Below are a few suggestions for the set up:

- 1. The two main speakers should be set between six and ten feet apart. Putting them any closer or farther apart may result in less satisfactory sound.
- 2. Try to align center speaker and two main speakers, or set the center speaker slightly behind the left and right main speakers, otherwise the surround effect may be less satisfactory.
- 3. Aim the rear speakers directly at the two main speakers, matching height to height. If the room is sparsely decorated, slightly tilt the speakers down to increase sound quality. If the room is densely decorated, face the speakers towards the rear wall at the ceiling.

Main Left Centro TV Main Right Subwooder Rear Left Rear Rigth

Actually there are many more possible options. You may experiment repeatedly to find a right balance for you.

For more information on speaker setup, please refer

to "Fine Setting of the Speakers" on page 12 & "Speaker Distance" on page 13



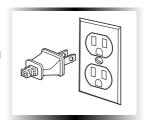
Dolby Digital

Manufactured under license from Dolby Laboratories.

"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories. Copyright 1992-1997 Dolby Laboratories, Inc. All Rights Reserved.

Connecting for Power

Make sure you connect all your other electronic components and the speakers before plugging your receiver into the outlet. Plug the power cord in the wall outlet, matching the wide blade of the plug with the wide slot in the outlet. Be sure to insert the plug completely.



Using Headphones

To listen privately through your audio system, use the **PHONES** jack on the receiver. However, make sure you turn down the volume before you put on the headphones. Increase the volume to the desired level after headphones are in place.



Once headphones are connected, "HEADPHONE DOWNMIX 2 CHANNEL" will scroll on display.

Demo Mode

Right after you have plugged in the power, a demo message will appear in display. It will also be displayed if you press the **SET/DEMO** at **STANDBY** mode or press a source button (like CD) but then leave all buttons untouched for 30 seconds. To restore to normal status, press **SET/DEMO** again to return to **STANDBY** mode.

Restore to Factory Settings

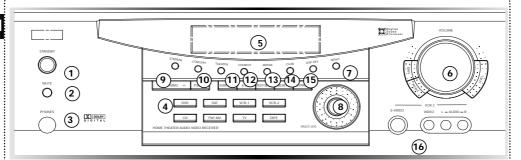
You can always restore all settings back to original state. When the receiver is in STANDBY mode, press accordingly as:

STADIUM → NIGHT → DSP OFF → CLUB

then you can restore everything like preset radio station frequencies, speaker settings, etc, back to the first time you use it.

Note: As you turn on the receiver, it will first enter TUNER mode and show frequency as 87.5MHz after the settings have been restored.

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Receiver Controls

1. STANDBY

To turn the unit on/ off. When the system is turned on, the unit will go to the mode it was in before power off.

2. MUTE

To mute all audio outputs.

3. PHONES

Plug your headphones (not supplied) into it for your private enjoyment. Speakers will be off when phones are inserted.

4. Source Buttons

To select sound source. For example, CD, SAT etc. In standby mode, they are also One Touch Power On keys to turn on the receiver directly at the source mode you want.

5. Display

To display current status of the receiv- 9. TUNING

6. Sound Control

Let you adjust the sound - volume, treble, bass & balance. To change the **VOLUME**, turn the large central knob. To adjust TREBLE or BASS, press relevant button and turn the knob. To change the volume of individual speaker, press **LEVEL** button repeatedly to select the speaker, then turn the knob to adjust the level. (refer to "The TEST/ SET UP button" on page 12.)

7.DSP (Digital Sound Processor) & **NIGHT** mode

Press corresponding button to select the mode (STADIUM/ CONCERT/ THEATER/ ARENA/ CHURCH/ CLUB/ **OFF)** you want. Press **NIGHT** for your enjoyment at night (see page 12).

8. MULTI JOG, SET/DEMO

When pressing the SET/DEMO repeatedly, the display will toggle among Audio Source (for DVD, SAT & CD), **SLEEP** mode and **DIM** selection.

Please refer to page 12 for Input Signal Setting. In SLEEP mode, you can set the receiver to turn off after 30, 60, 90 or 120 minutes. In **DIM** selection, you can rotate to set the brightness of the display. Such setting 14. PRESET EQ will be stored. Also use the MULTI JOG for speakers and sub-woofers setup and preset radio stations selec-

Press to select the tuner frequencies manually.

10. P. SCAN (Preset Scan)

Press for about 2 seconds and tuner station presets will be started automatically.

11. SURR. MODE

Press repeatedly to select the surround mode you want. (refer to "Advanced Sound Control" on page 11.)

12. 6 CH (6 Channels)

Press to select the input connected to an external 6-Channel decoder. Press again to return to the most recently selected source mode. (see "5.1 ch Input for Dobly Digital" on page 11).

13. TEST/ SET UP

When pressing it briefly, a short noise (test tone) will be generated in the speakers one by one so that you can adjust the volume of individual speaker. When keep pressing for two seconds, it will enter setup mode for speakers and subwoofers. Rotate the MULTI JOG to choose the options. (refer to "The TEST/ SET UP button" on page 12.)

Press repeatedly to select the desirable EQ mode (music style) - CLAS-SIC, POP, ROCK, JAZZ, VOCAL or FLAT. Your choice will be saved automatically.

15. BYPASS

Press to cut sound output from center, surround & subwoofer speakers.

16. VCR2

For convenient use of your digital camera, family game machines, second VCR, etc.

Note: If your video component has S-Video output, you can enjoy enhanced video quality by connecting it to the S-Video jack on receiver using a S-Video cable (not included).

Operating your Receiver

Your Remote Control

Please be sure you have inserted the batteries into the remote control (see relevant section on page 3.) You can test it by pressing any button. If it works, the red LED will light.

1. ON/OFF

To turn on or off the receiver and other auxillary components (see page 10 "Using the Remote to Control Additional Components").

2. Source Buttons

To turn on and select various audio/ video sources. You can also enter the 6 Channels direct input mode by pressing **DVD-6CH**.

3. CH+, CH- (Channel Buttons)To select programmed stations (in **TUNER** mode).

4. VOL (Volume Buttons) To adjust the volume.

5. MUTE

To mute all audio outputs.

6. Adjustment Buttons

Press AUDIO button to activate the control, then upon pressing OK, the display will toggle among Preset EQ (Stereo only), SLEEP Mode & DIM Mode. When the display shows the setup you want to change, press the left and right arrow buttons beside OK button to make changes, then press OK to finalize your choice.

7. Number Buttons

To access directly a pre-set station (in **TUNER** mode).

8. MENU

Press to store desired frequency in memory. The flashing word **MEM-ORY** in red will appear in display. Input your desired channel number while the word is still flashing and the frequency will be stored. (For details, refer to "Storing and Recalling Stations in Memory" on page 10.)

9. Operation Buttons

In TUNER mode, you can press REVERSE and FORWARD keys to tune down or up the radio frequency. PLAY, RECORD, STOP and PAUSE keys are for easy control of components (like CD, TV, DVD, TAPE, etc.) other than the receiver itself. What you need is to encode the components in advance. (For details, refer to "Using the Remote to Control AdditionalCcomponents" on page 10.)

10. DIGITAL

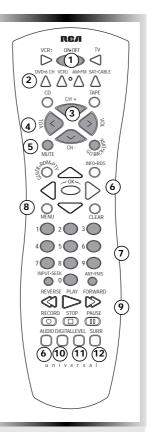
Select the way your audio/video components are connected to the receiver – Analog, Optical, or Coaxial.

11. LEVEL

Press to adjust the volume of individual speaker. Press repeatedly and the display will toggle among different channels (Left main speaker, Right main speaker, Center speaker, Left surround speaker, Right surround speaker, and/or Subwoofer, if available), then press the left and right arrow buttons beside **OK** button for adjustment.

12. SURR (Surround Sound Control)

Press to change the surround



sound settings. The display will toggle among DOLBY DIGITAL, DOLBY PRO LOGIC, DOLBY 3 STEREO, STEREO and DSP modes.

(For details, refer to section "Advanced Sound Control" on page 11.)

Note: The remote buttons GO BACK•DISK, GUIDE•RDM•PTY, INFO•RDS, CLEAR, INPUT•SEEK & ANT•FMS do not work with the receiver.

Operating your Receiver

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The Built-in Radio

The receiver has built-in AM/FM radio function. You can simply connect it to power and speak-

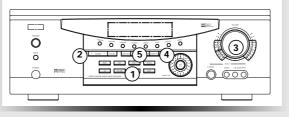
ers to listen to your favorite radio stations.



- 2. Tune to your favorite station.
- 3. Adjust volume.
- 4. Set preset EQ if needed
- 5. Set surround mode if needed.

Seek Tuning

You can keep pressing one of the TUNING buttons on the unit or REVERSE/FORWARD buttons on the remote for a second, and the receiver will search for the next available station for you.



Storing and Recalling Stations in Memory

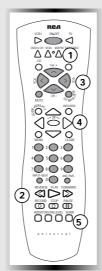
Set to desired frequency by the receiver or remote

control , then press **MENU** on the remote control. The flashing word **MEMORY** in red will appear in display. While the word **MEMORY** is still flashing, input your desired channel number and the frequency will be stored.

Tip: You can store up to 30 stations.

After you have done so, you can rotate the **MULTI JOG** on receiver or press **CH+** or **CH-** buttons on remote to select the preset stations directly.

Note: The **CH+** and **CH-** buttons respond only in **TUNER** mode in case you want to switch channels.



Using the Receiver to Play DVD or CD or Video Cassette Player

After you have connected your DVD or CD or VCR player with the receiver, you can partly control them through your receiver:

- 1. Connect the DVD or CD or VCR player with the receiver. (For details, refer to page 4.)
- 2. Select $\mbox{\bf DVD}$ or $\mbox{\bf CD}$ or $\mbox{\bf VCR}$ according to the source connected.
- 3. Turn on the connected player and start playback.
- 4. Set Preset EQ if needed. (For details, refer to item
- 11 "Preset EQ" on page 8.)
- 5. Set Surround Mode if needed. (For details, refer to
- "Advanced Sound Control" on page 12)
- 6. Set Night Mode if needed. (For details, refer to "Night Mode" on page 12.)
- 7. Adjust Volume.

Using the Remote to Control Additional Components

You can set your remote to control other components (like CD, TV, DVD, TAPE, etc.). What you need is to encode them in advance (not necessary for recent RCA & Proscan models)

- 1. Turn on the component to be programmed.
- 3. While keeping the corresponding Source Button (like VCR1, VCR2, TV, DVD) on the remote pressed, enter the code from the code list through the Number Buttons.
- 4. Release the component button, then press
 ON-OFF to see if the component will be turned off.
 5. If this does not work, repeat steps 3 and 4 by trying to use the next code (if available) listed for the brand of your component until the component responds to

Operating your Receiver

the remote command

Note: Once your component is encoded, you can press **ON/OFF** on the remote once to turn off the component and then followed by the second time quickly to turn off the receiver (i.e. this unit). If you only want the receiver to be turned off, select **FM/AM** while the unit is ON before pressing **ON/OFF**.

Tips:

This remote may not operate all models of the brands shown.

If batteries are removed from the battery compartment of the remote control, all memory will be lost. You need to reenter all previously programmed codes again.

The buttons on the remote may not work correspondingly with those on the components brands. Experiment with the remote and your components to see which buttons work. If only a few functions operate, check to see if another code set will work with more buttons.

Advanced Sound Control

Sound Enhancement Systems

This receiver is equipped with several built-in sound enhancement systems to give you the sound quality you have once dreamed of – but now comes true:

Dolby Pro Logic and Dolby 3 Stereo

This surround system reproduces theater-like surround sound from Dolby-encoded software. The **Pro Logic** mode uses the built-in circuit to steer the Left, Center, Right and Surround channel audio signals and uses all five speakers and an optional subwoofer to play decoded Dolby Pro Logic program source, such as TV and VCR. The **3 Stereo** mode will redirect the Surround signals to the front left and right speakers when only the front and center speakers are used.

Use this mode to suit your speaker system configurations (such as size and number of speakers) and type of program (such as VCR).

5.1 ch Input for Dolby Digital

The Dolby Digital mode lets you enjoy full digital surround from software processed in the Dolby Digital format. Dolby Digital provides better sound quality and more powerful presence than conventional Dolby Surround.

When the soundtrack of a Dolby Digital movie was made, all the sound effects are mixed down to six sep-

arate channels of digital audio, and these six channels of independent digital audio are pressed to a single stream of digital data on your DVD. When you play it by your DVD player, the receiver decodes this stream of digital data back to six audio channels for playback. Dolby Digital is optimal for DVD and SAT.

This unit is equipped with Dolby Digital 5.1-channel input terminal so that you can enjoy enhanced full digital surround sound. Being different from Dolby Pro Logic in which only four channels (Front Left, Front Right, Centre and Rear) are used, the new system provides stereo separation of the rear speakers (Rear-Right, Rear-Left). These 5 channels, together with the subwoofer channel for bass sounds (counted as 0.1 channel), constitue as 5.1-Channel (or 6 Channels) Input for Dolby Digital that brings you the most sophisicated sound enjoyment.

Press 6 CH on the unit or DVD•6 CH button on the remote to select the input connected to an external 6-channel decoder. Press again return to the most recently selected mode. You can only adjust Sound Control, SLEEP mode, DIM selection, Source Buttons and MUTE when this mode is selected.

Stereo

The Stereo mode uses the two main channel outputs from the front speakers. Use this mode if you have connected the front speakers only.

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Advanced Sound Control

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DSP (Digital Sound Processor)

These digital sound effects resemble sounds in a real environment such as Stadium, Concert, Theater, Arena, Church, Club. **DSP** automatically converts analog audio signals to digital ones which enables you to adjust the sound without degrading the sound quality. Different modes will give you different feel of size and type of listening environment.

Night Mode

By using Dynamic Range Compression technology, you can enjoy enhanced sound quality by Dolby Digital at night without interrupting your roommates or neighbors. While enjoying a Dolby Digital enabled component (DVD, SAT), you can activate Night Mode by pressing **NIGHT** button at the front of the receiver, and this mode will compress the difference in volume between normal voices and sounds like explosions. There are two modes (**SOFT**, **SOFTER**) for you to choose the extents of compression.

Fine Setting of the Components Input IQ

One of the smartest features of the receiver is the ability to pre-select the best surround mode for you once you turn on the unit by pressing the Source Buttons (like DVD, SAT, CD) directly. The default surround modes for different components are as table below. If you decide to change the surround mode, you can press the **SURR MODE** button to change to the mode you want.

| Source/ Input | If Digital Input (optical or coaxial) is selected | |
|------------------|---|-----------|
| DVD | Dolby Digital | PRO LOGIC |
| SAT | Dolby Digital | PRO LOGIC |
| VCR1 | N/A | PRO LOGIC |
| VCR2 | N/A | PRO LOGIC |
| TV | N/A | PRO LOGIC |
| CD | STEREO | STEREO |
| TAPE | N/A | STEREO |
| TUNER | N/A | STEREO |

Input Signal Setting

The receiver has defaulted to the most convenient settings for your easiest use (see table).

If your connection is different from the default setting, you can press **SET/DEMO** and then rotate **MULTI**

JOG to toggle among optical/ coaxial/ analog to match your connection. Your selection will be stored automatically.

Every time you press the source button, the input setting (e.g. DVD/ OPTI) will be shown on display for a few seconds to refresh your memory.

| SOURCE | DEFAULT INPUT (as seen on display) |
|--------|---|
| SAT | Coaxial (SAT/ COAX) |
| DVD | Optical (DVD/ OPTI) |
| CD | Optical (CD/ OPTI) |
| VCR1 | Analog (VCR1/ ANL) |
| VCR2 | Analog (VCR2/ ANL) |
| FM/AM | Built-in Tuner |
| TAPE | Analog (TAPE/ ANL) |
| | • |

Fine Setting of the Speakers

This receiver supports a wide range of speakers and subwoofers. For optimal surround sound enjoyment, you need to register the speaker selection settings of your audio system. If you buy this receiver with accompanied speaker package, then this step has been done for you.

Also, to make the surround sound more effective and suit the acoustic conditions in your listening room, you need to delay the signal from some of the speakers. Such channel delay compensates for center or surround speakers that are closer to listening position than the front speakers. You can make use of the TEST/ SET UP button to control the speakers such as their relative loudness.

The TEST/ SET UP button

You can adjust the relative loudness of the individual speakers by **TEST/ SET UP** button. In Dolby modes, press the button briefly. A short noise will be heard in the speakers one by one. The speaker having the noise at that moment will be shown in the display. You can listen to that speaker and rotate the **MULTI JOG** to adjust the level.

Speaker Configurations

You can also change the setup of the speakers by pressing the **TEST/SET UP** button until the display shows LR LRG which enables you to set the volume size of the front speaker.

Advanced Sound Control

Front Speaker selection
Center Speaker selection
Surround Speaker selection
Subwoofer selection
Subwoofer Phase
Front Speaker distance
Centre Speaker distance
Rear Speaker distance
O-40 ft
Rear Speaker distance
O-40 ft
Rear Speaker distance
O-40 ft

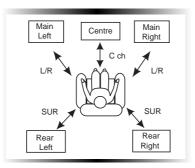
By pressing the button repeatedly while display is still showing L/R IRG, the display will toggle among: front, center, surround, subwoofer, subwoofer phase and speakers' distance setup. You can now set the volume size or speakers' distance by rotating the **MULTI JOG**.

Note

- The sub-woofer selection will always be YES when the main speakers are set to small (SML).
- For the subwoofer phase setting, it will be affected by how you locate the subwoofer. Try both + and settings and select the one that has better bass effect.

Speaker Distance

To make the surround sound more effective and suit the acoustic conditions in your listening room, you need to input the distance of the speakers measured from your favourite listening position. The receiver will adjust the appropriate delay compensation for you.



Note: The receiver has defaulted the following distances:

Main speakers (L/R) 15 ft Center speaker (Cch) 15 ft Rear speaker (SUR) 10 ft

Speaker Icons

The receiver shows you the speakers' types and settings on the display with the following icons:



Displaying Program Formats

When a digital source is playing, the receiver will automatically switch to the proper surround mode and indicates on the speaker icons on the right-hand side of the display. (See diagram)

It is important to note, however, that not all Dolby Digital sources are encoded with the full complement of five channels plus LFE*. Speaker icons show how many and which speaker you have enabled (See "Fine Setting of the Speakers") and the



letters inside the speaker icons show which channel is present in the source information. For example, the diagram shown means you have all the five speakers and subwoofer enabled and the digital sources you played have five channels plus LFE complemented.

* IFE stands for Low Prequency Effect. The indication "IFE" appears if the digital source contains IFE information. In this case, the bass signal will be delivered to the subwoofer, offering more dynamic deep bass sound effects. If the letter is flashing, the signal is either too week or just gone.

Care and Maintenance

EN

Troubleshooting Tips

Receiver/Tuner Operation

STEREO indicator is off.

· Adjust the antenna.

The signal is Mono. Severe hum or noise.

• The signal is too weak. Connect an external antenna

Remote Control Operation

The remote control does not operate the unit.

- Another function mode is selected on the remote.
 Press the correct Source Button.
- No batteries installed. (included with your system) Install the batteries before attempting to operate the remote. Be sure to match the + and ends of each battery to the symbols shown in the remote battery compartment.
- · The batteries are weak. Replace all batteries.
- The remote is not pointed at the remote control sensor on the main unit or there is an obstacle between the remote and the main unit.
- The remote control is too far from the main unit, move closer.

General

No audio.

- · Make sure the speakers are connected.
- · Check the connections.
- · Check the power cord connections.
- Make sure the **MUTE** indicator on the front panel is off.
- Make sure the digital setting (optical, coaxial or analog) is correct.

No audio from one channel.

- Check the speaker level setting.
- Check the speaker wire or cable connections.

Noise creates when the TV is turned on.

• The TV is too close to the audio system.

Specific instruments sound displaced.

- Check the connections between the receiver and the speakers if the sound does not match the video.
- Press the Source Button for the video source.

Cleaning the Exterior

• Disconnect the system from AC power before cleaning the exterior of the system with a soft dust cloth, or with a slightly humid chamois leather. Never use strong solvents.

Equipment Specifications:

AMPLIFIER SECTION:

All 5 channels: each 50W at 6 ohm.

0.9% THD @1 kHz

Subwoofer channel: 100w at 3 ohm (RT2250 only)

Muting Attenuation: 65dB

Frequency Response: 40Hz to 20kHz +/-3dB Signal to Noise Ratio: 65dB (Bypass mode)

VIDEO SECTION:

Input (Sensitivity/Impedance):1Vp-p/75ohm Output (Level/Impedance): 1Vp-p/75 ohm Frequency Response: 10Hz to 6MHz at +/- 3dB

Signal to noise ratio: 40dB Crosstalk @3.58MHz: 40dB

AM TUNER SECTION:

Frequency Response: 80Hz – 2kHz +/-6dB Usable Sensitivity: 800uV/m @ S/N 20dB

Signal to Noise: 38dB Image Ratio: 27dB @ 1000kHz IF Rejection: 35dB

FM TUNER SECTION:

Frequency Response: 40Hz - 15kHz +/-3dB

Quieting: 24dBu

Signal to Noise: 60dB(stereo)/ 65dB(mono)

Image Ratio: 40dB IF Rejection: 50dB

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MASUSHITA

2021

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US Warranty

What your warranty covers:

· Any defect in materials or workmanship.

For how long after your purchase:

· One year.

(The warranty period for rental units begins with the first rental or 45 days from date of shipment to the rental firm, whichever comes first.)

What we will do:

- Provide you with a new, or at our option, a refurbished unit.
- The exchange unit is under warranty for the remainder of the original product's warranty period.

How to make a warranty claim:

- Properly pack your unit. Include any cables, etc., which were originally provided with the product.
 We recommend using the original carton and packing materials.
- Include in the package evidence of purchase date such as the bill of sale. Also print your name and address and a description of the defect. Send standard UPS or its equivalent to:

Thomson Consumer Electronics, Inc. Product Exchange Center 11721 B Alameda Ave. Socorro, TX 79927

- Pay any charges billed to you by the Exchange Center for service not covered by the warranty.
- Insure your shipment in case of loss of damage. Thomson accepts no liability in case of damage or loss.
- A new or refurbished unit will be shipped to you prepaid freight.

What your warranty does not cover:

- Customer instruction. (Your Owner's Manual provides information regarding operating instructions and user controls. For additional information, ask your dealer.)
- Installation and set-up service adjustments.
- Batteries.
- Damage from misuse or neglect.
- Products which have been modified or incorporated into other products.
- Products purchased or serviced outside the USA.
- Acts of God, such as but not limited to lightning damage.

Product Registration:

• Please complete and mail the Product Registration Card packed with your unit. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

How state law relates to this warranty:

• This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

If you purchased your product outside the USA:

• This warranty does not apply. Contact your dealer for warranty information.

Canadian Warranty



Thomson Consumer Electronics Canada, Inc. warrants to the purchaser or gift recipient that if any manufacturing defect becomes apparent in this product within 1 year from the original date of purchase, it will be replaced free of charge, including return transportation.

This warranty does not include damage to the product resulting from accidents, misuse or leaking batteries. Should your product not perform properly during the warranty period, either:

1. Return it to the selling dealer with proof of purchase for replacement,

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- Remove the batteries (where applicable), and pack product complete with accessories in the original carton (or equivalent).
 - Mail prepaid (with proof of purchase) and insured to:

Thomson Consumer Electronics Canada, Inc.

Distribution Centre

7400 A Bramalea Road

Mississauga, Ontario L5S 1X1

The provisions of this written warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies contained in any applicable legislation, and to the extent that any such provisions purport to disclaim, exclude or limit any such statutory warranties and other rights and remedies, such provisions shall be deemed to be amended to the extent necessary to comply therewith. If you are unable to find a qualified technician for out of warranty service, you may write to:

Thomson Consumer Electronics Canada, Inc.

P.O. Box 0944

Indianapolis, Indiana, U.S.A., 46206-0944

Attach your sales receipt to this booklet for future reference. This information is required if service is needed during the warranty period.

| PURCHASE DATE | |
|---------------|--|
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| | |
| NAME OF STORE | |
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Model Number: RT2250/RT2250R 55059640 (Rev. 0 EN/ F/ E) 12-1999